

F16.2

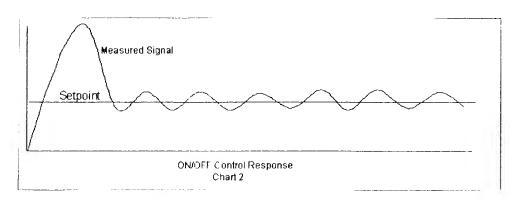


Fig. 3

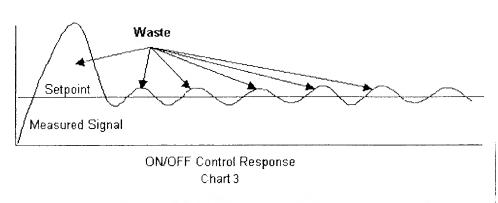
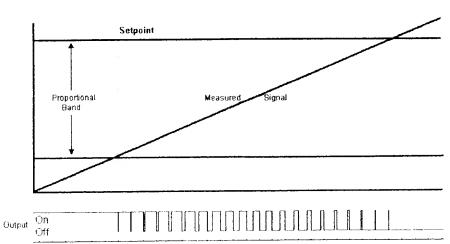


FIG. 4



Time Based Proportional Control Chart 4

Chart 5 shows the ideal response of a Time Based Proportional control system.

Fig. 5

Setpoint

Measured Signal

Ideal Proportional Control Response Chart 5

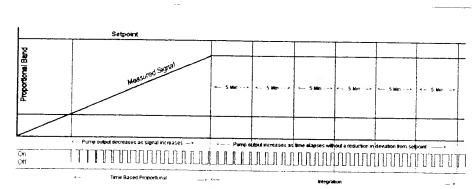
F10. 6

Setpoint

Measured Signal

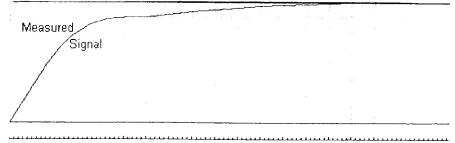
Actual Proportional Control Response (with loading)
Chart 6

F16. 7



Time Based Proportional with Integration Chart 7

Fig. 8



Expected Time Based Proportional with Integral Response (under load)
Chart 8

Time Based Proportional Logic - Feed Up Example PB= Proportional Bandwidth SIG=Signal from Sensor SP=Setpoint TB= Time Base TBP= Time Based Proportional Start Turn OFF ALL chem Flow switch enabled? NO feed relays YES NO Signal below setpoint? Is MIN ON time NO Turn Relay OFF delay satisfied? YES NO Is MIN OFF time Config. For TBP? NO YES Turn Relay ON delay satisfied? YES SIG < (SP-PB) ? YES NO L

Is MIN OFF time delay satisfied?

Turn relay ON

FLOW SWITCH ENABLED

YES

HAS TIME (SP-SIG) * TB PB EXPIRED?

NO

FIGURE 9

Has relay been on for

minimum time?

Tum OFF ALL chem feed relays

YES

Turn relay OFF

YES

